

WELNICK ET AL.
"Accelerated Allocation Of Neighbor Signals To
Candidates In Cellular Communications Devices"
Atty. Docket No. CS23200RL

Appl. No. 10/626,184
Confirm. No. 1465
Examiner A. Addy
Art Unit 2617

1. (Original) A method in a wireless communications device that allocates neighbor signals to a candidate set, the method comprising:

determining a number of signals in an active set;

allocating signals to the candidate set more quickly when the number of signals in the active set is less than a threshold number than when the number of signals in the active set is greater than the threshold number.

2. (Original) The method of Claim 1,

allocating signals to the candidate set includes delaying the allocation of signals to the candidate set for a first delay interval when the number of signals in the active set is less than the threshold number, and

delaying the allocation of signals to the candidate set for a second delay interval when the number of signals in the active set is greater than the threshold number,

wherein the first delay interval is less than the second delay interval.

3. (Original) The method of Claim 2, delaying the allocation of signals to the candidate set for the first delay interval includes immediately promoting signals to the candidate set when a strongest of the active signals does not meet a signal quality threshold.

4. (Original) The method of Claim 1, when the number of signals in the active set is less than the threshold number, allocating signals to the candidate set more quickly only when the number of signals in the active set is less than a threshold number and when a quality of a strongest of the active signals is less than a first signal quality threshold.

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5. (Original) The method of Claim 4,
if the number of signals in the active set is equal to the threshold
number,

allocating neighbor signals to the candidate set more quickly only
when the number of signals in the active set is equal to the threshold number
and when the strongest of the active signals does not meet a second signal
quality threshold,

the second signal quality threshold less than the first signal quality
threshold.

6. (Original) The method of Claim 1,
the signals in the active set are assigned to fingers of a rake
receiver,

allocating signals to the candidate set more quickly only when the
number of signals in the active set is less than the threshold number and when
a most energetic rake finger has an energy greater than an energy threshold.

7. (Original) The method of Claim 1,
allocating neighboring signals to the candidate set based on signal
promotion criteria,

allocating signals to the candidate set when the number of signals
in the active set is less than the threshold number based on consideration of
signal promotion criteria for not more than one scanning period.

8. (Original) The method of Claim 1, allocating signals to the
candidate from a pre-candidate set.

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9. (Original) A method in a wireless communications device that allocates neighbor signals to a candidate set based on criteria considered over at least one scanning period, the method comprising:

determining a number of signals in an active set;

when the number of signals in the active set is greater than a threshold number, allocating neighbor signals to the candidate set using criteria considered over more than one scanning period;

when the number of signals in the active set is less than the threshold number, allocating neighbor signals to the candidate set using criteria considered over fewer scanning periods than when the number of signals in the active set is greater than the threshold number.

10. (Original) The method of Claim 9, allocating neighbor signals to the candidate set using criteria obtained over a single scanning period when the number of signals in the active set is less than the threshold number.

11. (Original) The method of Claim 9,

when the number of signals in the active set is less than the threshold number,

allocating neighbor signals to the candidate set using criteria considered over fewer scanning periods only when the number of signals in the active set is less than the threshold number and when a strongest of the active signals does not meet a first signal quality threshold.

12. (Original) The method of Claim 11,

if the number of signals in the active set is equal to the threshold number,

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allocating neighbor signals to the candidate set using criteria considered over fewer scanning periods only when the number of signals in the active set is equal to the threshold number and when the strongest of the active signals does not meet a second signal quality threshold,

the second signal quality threshold less than the first signal quality threshold.

13. (Original) The method of Claim 9,
the signals in the active set are assigned to fingers of a rake receiver,

allocating signals to the candidate set using criteria considered over fewer scanning periods only when the number of signals in the active set is less than the threshold number and when a most energetic rake finger has an energy greater than an energy threshold.

Claims 14-16 (Canceled).

17. (Original) A method in a wireless communications device that allocates neighbor signals to a candidate set, the method comprising:

allocating signals to the candidate set based on signal allocation criteria;

dynamically changing the signal allocation criteria based on at least one of a number of signals in an active signal set and on a signal quality of a strongest of signal in the active signal set.

18. (Original) The method of Claim 17,

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operating the communications device in soft handoff with the
signals in the active set,

dynamically changing the signal allocation criteria when the
number of signals in the active set changes relative to a threshold number.

19. (Original) The method of Claim 17,

operating the communications device in soft handoff with the
signals in the active set,

dynamically changing the signal allocation criteria when the
number of signals in the signal strength of the strongest signal in the active set
changes relative to a signal strength threshold.